Two doctoral positions

ENTRY-DM: *MSCA Doctoral network*

Interdisciplinary doctoral training on oligonucleotide-based therapies for myotonic dystrophy

Two PhD positions year are available from September 2025, in the laboratory Repeat Expansions and Myotonic Dystrophy, at the Myology Research Centre / Institute of Myology in Paris, France. The project is funded by a MSCA Doctoral network, coordinated by Mario Gomes-Pereira.

NETWORK DESCRIPTION: ENTRY-DM is an interdisciplinary training and research programme focused on RNA-based therapeutics for myotonic dystrophy (DM). It offers 14 fully funded positions across top European institutions, integrating fundamental science, translational medicine, and clinical applications. The network integrates academic leaders, biotech experts, and patient advocates to develop disease models, optimise antisense oligonucleotide (ASO) therapies, and identify clinical biomarkers. Doctoral candidates will receive advanced training in genomics, bioinformatics, stem cell research, bioengineering, and neuropsychology. With host institutions in France, Spain, Italy, the Netherlands, Germany, and Poland, ENTRY-DM provides exceptional mobility, cross-sector training, and world-class supervision. It will equip doctoral candidates with the expertise to drive future breakthroughs in RNA therapeutics for rare disease treatment.

PROJECT 1: Development of circulating muscle-specific biomarkers of myotonic dystrophy
This project aims to identify circulating biomarkers of DM1 muscle disease severity and treatment response by analysing extracellular vesicles in blood. Using DM1 cell models (human and mouse-derived) and isogenic controls, transcriptomic and proteomic analyses will be conducted to detect muscle-specific biomarkers. These will be validated in patient blood samples and assessed for responsiveness to various gene therapeutic therapeutic approaches. **Supervisors:** Genevieve Gourdon (genevieve.gourdon@inserm.fr); Denis Furling (denis.furling@sorbonne-universite.fr)

PROJECT 2: Circulating biomarkers of brain dysfunction in myotonic dystrophy type 1
This project aims to identify brain-specific biomarkers to monitor disease progression and therapeutic response in DM1. The study will focus on the analysis of the secreted proteome, transcriptome and metabolome of neurons and astrocytes to reveal disrupted neuroglial interations and uncover candidate biomarkers of brain disease. Finally, we will evaluate how the neuronal and glial secretome responds to therapeutic interventions, ASOs and RNA-binding protein decoys, to support the development of future clinical monitoring tools. **Supervisor:** Mario Gomes-Pereira (mario.pereira@inserm.fr)

CANDIDATES PROFILE: We are looking for highly motivated and ambitious doctoral candidates, with a strong knowledge in molecular and cellular biology. A keen interest in muscle physiology or neurobiology, RNA-based therapeutics and biomarker discovery is essential. Applicants must hold an MSc degree in Life Sciences, Biomedical Sciences, or in a related field. Practical experience in molecular biology techniques (such as PCR, RT-PCR) and cell culture is required. The applicant must have not resided in France for more than 12 months in the 3 years immediately prior to recruitment.

Starting Date: September 2025
Application deadline: 30 May 2025

FOR FURTHER DETAILS, FULL ELIGIBILITY CRITERIA AND HOW TO APPLY:
👉 **Project 1:** https://euraxess.ec.europa.eu/jobs/324426
👉 **Project 2:** https://euraxess.ec.europa.eu/jobs/324434

CENTRE DE RECHERCHE EN MYOLOGIE
INSTITUTE OF MYOLOGY CURE THROUGH INNOVATION
Funded by the European Union